

REMARKS

I. The Claims

Claims 1-15 and 25-28 are pending. Claims 1-6, 8-15 and 25-28 stand rejected under 35 U.S.C. §103(a) as being unpatentable over United States Patent No. 5,585,427 to Schimmel et al. (hereinafter referred to as "Schimmel") in view of United States Patent No. 3,693,147 to Benefiel et al. (hereinafter referred to as "Benefiel"). In this amendment, claims 1-15 and 25-27 are amended and claim 28 is canceled.

II. Response To Rejections

Claims 1 and 25

Independent claims 1 and 25 have been amended. These claims are now directed to coating compositions comprising: (a) a pigmented solventborne paint pack, and (b) an aqueous phase, wherein the pigmented solventborne paint pack is dispersed in the aqueous phase. The pigmented solventborne paint pack comprises i) a solution in an organic solvent of polymer having functional groups and hydrophilic groups, and ii) a waterborne pigment dispersion comprising pigment dispersed in water in the presence of a pigment dispersant, the aqueous pigment dispersion itself being in dispersion in solution i). Thus, in the inventions of claims 1 and 25, there is a water-in-oil emulsion, *i.e.*, the pigmented solventborne paint pack, which is dispersed in an aqueous phase. As a result, the inventions of claims 1 and 25 cover an oil-in-water emulsion wherein a water-in-oil emulsion is dispersed in an aqueous phase that includes water or a combination of water with water miscible organic solvents. As used in the present application, the term "organic solvent," when not preceded by the words "water miscible", is meant to include only non-aqueous solvents which can be used to dissolve the polymer and which have little or no solubility in water.¹

¹ Applicant contends that, contrary to the Examiner's position, such a definition is reasonably clear based on a fair reading of the entire specification. Nevertheless, to the extent that the Examiner disagrees, it is clear that a patent applicant may also define a term during prosecution of a patent. *Home Diagnostics, Inc. v. Lifescan, Inc.*, 381 F.3d 1352, 1356, 72 USPQ2d 1276 (Fed. Cir. 2004). Thus, the definition of "organic solvent" provided above is controlling.

Applicant respectfully traverses the Examiner's rejection of claims 1 and 25, because the Examiner has failed to establish a *prima facie* case of obviousness with respect to these claims as amended. In particular, even if, as the Examiner contends, the combination of Schimmel with Benefiel is proper,² such a combination does not teach or suggest all of the limitations of claim 1 or claim 25, as amended herein. *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970) (to establish a *prima facie* case of obviousness, the prior art reference or combination of references must teach or suggest all the limitations of the claims). As a result, Applicant respectfully requests that the Examiner withdraw the rejection of independent claims 1 and 25.

According to the Examiner, Schimmel discloses "a composition" which comprises an water-in-oil emulsion in which a waterborne pigment dispersion, comprising pigment dispersed in water, is dispersed in a solution of a polymer in an organic solvent. See Office Action at 6. Non-limiting examples of the polymer, the Examiner states, are acrylic, polystyrene, acrylonitrile, polyester, epoxy, polyamide, aminoplast, and polyurethane polymers. *Id.* The Examiner contends that it would have been obvious to one of ordinary skill in the art to select, as the acrylic resin, a carboxy-hydroxy resin, as suggested by Benefiel. *Id.*

Notably, however, amended claims 1 and 25 are directed to compositions that comprise more than a water-in-oil emulsion in which a waterborne pigment dispersion, comprising pigment dispersed in water, is dispersed in a solution of a polymer in an organic solvent. Indeed, these claims now are directed to coating compositions that comprise (a) a pigmented solventborne paint pack (which comprises the "composition" alleged by the Examiner to be disclosed in the proposed Schimmel/Benefiel combination), and (b) an aqueous phase, wherein the pigmented solventborne paint pack is dispersed in the aqueous phase. In other words, the inventions of claims 1 and 25 are directed to compositions wherein the water-in-oil emulsion is dispersed in an aqueous phase, thus resulting in an oil-in-water emulsion.

² Applicant, however, does not concede this point for the reasons that have previously been set forth, such as in the Amendment After Final dated June 16, 2004 at pp. 8-9.

At no point in the proceedings to date has the Examiner ever contended that Schimmel discloses or suggests a coating composition of the type presently claimed in claim 1 or 25. As a matter of fact, canceled claim 28 was directed to essentially the coating composition of present claim 25. Indeed, Applicant stressed in the Amendment After Final that claim 28, which depended from former claim 25 and was directed to a waterborne coating composition, was separately patentable from former claim 25. See Amendment After Final at p. 7-8. The Office Action, however, never specifically addresses claim 28. Moreover, as illustrated below, a close review of the teachings of Schimmel reveals that the proposed Schimmel/Benefiel combination neither discloses nor suggests the invention of amended claim 1 or 25.

Schimmel discloses a coating composition. See col. 10, lines 28-30. This coating composition may include the following:

- (1) A film-forming polymer, such as acrylic, polystyrene, acrylonitrile, polyester, epoxy, polyamide, aminoplast, and polyurethane polymers. See col. 10, lines 36-46.
- (2) A crosslinker, such as melamine-formaldehyde resins, glycouril resins, benzoguanamine resins, and isocyanate-functional resins. See col. 10, lines 52-55.
- (3) A diluent, such as an organic solvent, water, a nonreactive oligomeric or polymeric material, mixtures of organic solvents, mixtures of water and water-reducible organic solvents, mixtures of nonreactive oligomeric or polymeric diluents, mixtures of nonreactive oligomeric or polymeric diluents in combination with any organic solvent mixture, or mixtures of nonreactive oligomeric or polymeric diluents in combination with water. See col. 11, lines 23-60.
- (4) Optional additives, such as plasticizers, anti-oxidants, etc. See col. 11, line 61 to col. 12, line 1.
- (5) A pigment dispersion that may include:
 - (a) a polymer, which is the inventive copolymer of Schimmel. See col. 7, lines 34-36.
 - (b) a pigment, such as inorganic, organic, metallic, metallic-effect, filler, and anti-corrosive pigments. See col. 7, lines 38-40.
 - (c) a diluent, such as an organic solvent, water, a nonreactive oligomeric or polymeric material, mixtures of organic solvents, mixtures of water and water-reducible organic solvents, mixtures of nonreactive oligomeric or

polymeric diluents, mixtures of nonreactive oligomeric or polymeric diluents in combination with any organic solvent mixture, or mixtures of nonreactive oligomeric or polymeric diluents in combination with water. See col. 7, line 66 to col. 8, lines 52.

(d) an auxiliary polymer, such as acrylic, polystyrene, acrylonitrile, polyester, epoxy, polyamide, butadiene, polyalkylene, polyalkylene glycol, aminoplast, polyurethane, polysilane, and polysiloxane polymers. See col. 9, lines 13-27.

(e) optional additives, such as anti-settling additives, pigment wetting additives, etc. See col. 9, lines 59-65.

The Examiner relies on the teaching of an acrylic film-forming polymer in Schimmel, see (1) above, which the Examiner replaces with the carboxy-hydroxy polymer disclosed by Benefiel. See Office Action at p. 6, lines 12-17. The Examiner then selects an organic solvent diluent, see (3) above, to achieve “a solution in an organic solvent of polymer having functional groups and hydrophilic groups.” The Examiner also identifies the teaching of a pigment dispersion, see (5) above, in Schimmel that comprises a pigment, see (5b) above, a pigment dispersant, see (5a) above, and a diluent see (5c) above. The Examiner selects water as the diluent for the pigment dispersion to achieve “a waterborne pigment dispersion comprising pigment dispersed in water in the presence of a pigment dispersant.”

What is plainly missing, however, from the Examiner’s proposed Schimmel/Benefiel combination is any teaching or suggestion to disperse the “composition” identified by the Examiner in an aqueous phase. Indeed, by selecting the teachings of Schimmel relied upon by the Examiner, the result is a coating composition that includes (a) a waterborne pigment dispersion that includes (i) a pigment, (ii) a pigment dispersant, and (iii) water, and (b) a film-forming polymer, which are dispersed in an organic solvent, i.e., a solventborne coating composition. Such a composition is contrary to the inventions of claim 1 and 25, as amended, wherein the composition comprises a dispersion of a pigmented solventborne paint pack in an aqueous phase.³

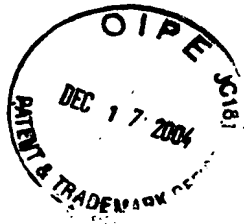
³ It should be clear that Schimmel does not contain any disclosure that might be remotely considered as covering the inventions of claims 1 and 25. In Schimmel, the only disclosed combination of organic solvents with water is in the case where water is combined with water-reducible organic solvents, i.e., solvents that mix with water without producing a phase separation. See col. 8, lines 41-52; col. 11, lines 42-60.

Therefore, the combination of references proposed by the Examiner does not teach or suggest all of the limitations of claim 1 or claim 25, as amended herein.

For the foregoing reasons, Applicant respectfully requests that the rejection of independent claims 1 and 25 be withdrawn.

Claims 2-15 and 26-27

Claims 2-15 and 26-27 all depend, directly or indirectly, from claim 1 or 25. As a result, these claims are allowable for the same reasons as claims 1 and 25. Applicant respectfully requests that the rejection of these claims be withdrawn as well.



CONCLUSION

Applicant respectfully requests entry of the foregoing amendment and allowance of the application at an early date.

Respectfully Submitted,

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